

## ABSTRACT

## Strip Material Used for shadow Mask Having Improved Post-Etching Shape

5

A mild steel or Fe-Ni alloy used for a shadow mask has  $TS/0.2\% YS \leq 1.03$ .

The cross sections  $S_1$  and  $S_2$  of a strip parallel and perpendicular to the rolling direction (RD), respectively, are subjected to the residual stress, which vary in the thickness direction. The maximum tensile residual stress ( $\sigma_r$ ) generated on a central portion of the cross sections  $S_1$  and  $S_2$  is adjusted to 50N/mm<sup>2</sup> or less.

A rectangle specimen elongated in the rolling direction (RD) is sampled from a rolled strip 1 shown at a central portion as seen in the width direction. Another rectangle specimen elongated in a direction perpendicular to the rolling direction (RD) is sampled from a rolled strip at a central portion as seen in the width direction. The rectangle specimens are clamped at one of the ends and are suspended downwards in a direction of the long sides thereof. Warp of the other non-clamped ends is 10 mm or less.